

REMARKS

Claims 6-23 are pending in the above-referenced application. Claims 6-19 are allowed,
5 and claims 20-23 stand rejected.

The Examiner objects to the drawings for failing to illustrate an apparatus for encoding
an audio signal. New Figure 8 is included herewith, in response. Applicant herein
amends the specification to refer to Figure 8. No new matter is added. Upon an
10 indication from the Examiner that Figure 8 is acceptable, Applicant will file the same as
a formal drawing with a Letter to the Chief Draftsperson.

The Examiner rejects claims 20-23 under 35 U.S.C. § 112, first paragraph, as failing to
comply with the written description requirement. Applicant respectfully traverses this
15 rejection.

An apparatus for encoding an audio signal is described at the last paragraph of page 6,
page 2, line 20 and page 5, line 30. The encoder as defined by independent claims 20
and 22 is disclosed by the specification for encoding an audio signal to obtain an
20 encoded base band audio signal. Fig. 7 illustrates a base band decoder 702, which is
fed by demultiplexer 701. This means that the serial bitstream includes an encoded
base band signal, since the encoded base band signal does not "fall from heaven."
Furthermore, please refer to page 6, lines 15 and 16.

25 Regarding the means for detecting, please refer to page 2, line 20. Here, one can read
that the discrimination between pulse-like and non-pulse-like signals can be performed
in the encoder. This embodiment is specifically described in the second paragraph of
claim 22.

30 Regarding the means for associating a control signal to the encoded base band audio
signal, please refer to page 2, line 20, where the control signal which is sent to the
decoder, is explicitly mentioned. Furthermore, please refer to page 6, line 22, where it

is outlined that the control signal, which controls the decoder-side processing is "transmitted from the encoder." Furthermore, please refer to the lower line exiting the demultiplexer 701, where the control signal or "control data" is explicitly mentioned. Since the demultiplexer demultiplexes the control signal or control data from the serial
5 bitstream, it is clear that the control signal is associated with the encoded based band signal and is located within the bitstream. Thus, it is clear that there has to be an encoder-side means for associating the control signal to the encoded base band signal, since the control signal cannot "come from heaven."

10 Regarding the last feature of the apparatus for encoding, i.e., that the apparatus for encoding is adapted to form a bitstream having the encoded base band signal and the control signal, see the serial bitstream entering the multiplexer 701 in Fig. 7. This serial bitstream cannot "fall from heaven," but has to be generated by any means, i.e., the encoder as defined in claim 22 or the encoding method as defined in claim 20. The last
15 paragraph of claim 22 simply recites that the bitstream is formed by the encoder and that the bitstream includes the encoded base band signal and the control signal. Thus, this feature is clearly disclosed in the application.

Since page 2, line 20 states that a discrimination between pulse-like and non-pulse-like
20 signals can be performed in the encoder and then a corresponding control signal is sent to the decoder, and since the second paragraph of page 6 and Fig. 7 clearly describes how the serial bitstream, (which of course has to come from an encoder) is processed, what is recited in the encoder-related claims is clearly described in the application. Again, please see page 5, line 30, where, the encoder-related embodiment is described.

25 The Examiner rejects claims 20-23 under 35 U.S.C. § 112, second paragraph, for being indefinite. Applicant respectfully traverses this rejection.

The Examiner states that it is unclear how the method and apparatus of encoding an
30 audio signal is performed. The claims relating to the encoder do not have any unclear point, since the paragraph of detecting is the same paragraph as in the decoder-related claims and those skilled in the art immediately know how to associate the control signal

to an encoded base band audio signal. Finally, regarding the step of forming a bitstream, which includes the encoded base band signal and the control signal, i.e., the bitstream as illustrated at the input into the demultiplexer 701, those skilled in the art immediately know how they can form such a bitstream. There exist numerous audio
5 encoded art forming a bitstream.

In view of that, the Examiner's objection under section 8 of the Office Action is not justified, since the encoder-related claim does not recite any specific encoding etc. features.

10 The Examiner rejects claims 20-22 under 35 U.S.C. § 102(b), as being anticipated by Minde. Applicant respectfully traverses this rejection.

Applicant would like to emphasize that the excitation signal $ex(n)$ in the Minde
15 reference, which may have noise-like components or pulse-like components is not the audio signal but is an excitation signal for the LPC synthesis filter, which is, of course, not an audio signal. Please refer to column 3, line 42, where it is explicitly stated that the excitation contains pulse-like or noise-like components. This excitation is different from the audio signal, since one cannot hear anything when the excitation signal is
20 rendered without the filter, but one can hear the "audio signal" as recited in claim 1. While the second paragraph of claim 22 explicitly states that the audio signal is pulse-like or non-pulse-like, Minde only teaches that an excitation signal for a filter is pulse-like or noise-like.

25 Since an "excitation signal as derived from a codebook" is not audible, one cannot say that the excitation signal is an audio signal.

Regarding the step of associating, the Examiner recites column 3, lines 6-12. However, this passage only states that an "error signal is forwarded to a weighting filter for
30 forming a weighted error vector." Nowhere does this passage state that there is a "control signal" or an "encoded base band audio signal," which are definite limitations in the associating step. The error signal in the second paragraph of column 3 of the Minde

reference does not include any indication whether a passage of the base band audio signal is pulse-train-like or not. Furthermore, this passage does not show any counterpart to the "encoded base band audio signal" as defined in the second paragraph of claim 20.

Regarding the step of forming a bitstream having the encoded base band signal and the control signal, the Examiner refers to column 7, lines 25-67. In this whole passage extending over the third, the fourth and the fifth paragraph of column 7 of Minde, there is no counterpart for the "encoded base band signal."

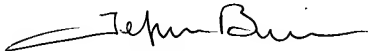
Furthermore, there is no counterpart for the "control signal" as specifically defined in the third paragraph of claim 20, and which control signal is formed by the detecting step, since this control signal indicates the result of the detecting step. Furthermore, in this passage there is no counterpart to a "bitstream," which includes the encoded base band signal as well as the control signal. All this is not surprising, since Minde only discloses an encoder generating an encoding signal, which outputs a certain code for the adaptive codebook, a certain code for a mixed excitation and some kind of filter coefficients for the synthesis filter $A(z)$. Such an encoder does not at all transmit any encoded base band audio signal to a decoder. Instead, only filter coefficients for the synthesis filter and codes for the codebook and the excitation are transmitted.

Furthermore, Applicant notes that the Examiner only discusses Applicant's "detecting" argument in his "response to arguments" section. Applicant submitted additional arguments regarding the first paragraph of claim 20 (see the penultimate paragraph of page 9 in Applicant's last response). Furthermore, Applicant submitted arguments regarding the associating step in the last paragraph of page 9 and, finally, Applicant submitted arguments regarding the bitstream feature in the last paragraph of claim 1 (in the first paragraph of page 10 of Applicant's last response). The Examiner did not reply to those arguments in his "response to arguments" section.

In view of the above, Applicant believes all claims are now patentable over the rejections of record.

In view of the above, Applicant believes all claims are now patentable over the rejections of record.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffrey Brill". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Jeffrey Brill

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